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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,251	01/04/2002	Gareth Geoffrey Hougham	YOR920010020US1	6189

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EXAMINER

EVANISKO, LESLIE J

ART UNIT PAPER NUMBER

2854

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/037,251	<b>Applicant(s)</b> HOUGHAM ET AL.	
	<b>Examiner</b> Leslie J. Evanisko	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 December 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. In view of the appeal brief filed on December 24, 2004, PROSECUTION IS HEREBY REOPENED. A non-final rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

***Election/Restrictions***

2. Applicant's election without traverse of Group I, claims 1-10 in Paper No. 6 is acknowledged.

3. Claims 11-14 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

### ***Specification***

4. It appears that applicant is using a trademark "Dow Corning Sylgard" in this application (page 5 of specification). If this term is a trademark, it should be capitalized (in all caps) wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the language of claim 1 and 7 render the claims unclear in scope and indefinite for several reasons. Firstly, the terms "wettability enhancement," "adhesion enhancement," "stiffness," "flatness," "porosity," etc. used throughout the claims are relative terms which render the claim indefinite. Each of these terms is not defined by the claim, the specification does not provide a standard

for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, what is required for a material to be considered to have the property of wettability enhancement? and as compared to what is a material “enhanced”?

Additionally, with respect to claim 1, the exact scope of the claim is unclear, particularly with respect to the phrase “said elastomeric stamp member having a surface region of a material imparting to said stamp member at least one of the properties of adhesion and wettability enhancement of the material of said circuitry pattern to said surface region.” (emphasis added). This language is confusing, particularly since it is not clear if applicant is referring to the further processing responsive “material” recited in the preamble and to the material comprising the electronic circuitry pattern. In particular, the way the claim is written, it appears that the electronic circuitry pattern recited is intended to be the surface of the stamp which receives the material to be transferred. Therefore, it is not clear if the applicant is claiming that a) the stamp member has a surface to which the electronic circuitry pattern (which receives the further processing responsive material to be transferred to the substrate) adheres better or that b) the further processing responsive material adheres better to the circuitry pattern surface. From the general context of the specification (see, for example, page 9, lines 6-7), as well as the wording of claim 7, it appears that applicant is intending for the claim to have the second meaning-- that the stamp pattern has optimal wettability or adhesion

properties for holding the material to be transferred to the substrate. However, appropriate correction and/or clarification is required.

With respect to claims 4 and 5, each of the claims is confusing in scope and meaning and appears to be modifying rather than further limiting the parent claim. In particular, claims 2 and 3 recite that the region is a single region, but claims 4 and 5 appear to reciting that the subsurface region has another region. To correct this problem, it is suggested that claims 2 and 3 be amended to remove the language regarding the single region and then claims 4 and 5 be amended to include language such as the following: --...wherein said at least one subsurface region comprises another region, said another region imparting the property of porosity to said stamp member and being positioned between...--

With respect to claim 7, the language in lines 6-8 is unclear in meaning and appears to be improperly reciting a method of manufacture step, thereby rendering the scope of the claim confusing and unclear. In particular, the claim is drawn to a microcontact printing stamp (which is assumed by the Examiner to be drawn to the finished stamp described in the specification). However, applicant then appears to recite patterning layers of the intermediate product during the formation of the final stamp. Therefore, it is not clear whether applicant is intending to claim the finished stamp as disclosed or something else. Additionally, the terms "the features," "the positive relief

embossed portions,” and “the final printing stamp” in lines 7-8 have no proper antecedent basis in the claim.

Appropriate correction and/or clarification is required.

7. Claims 6 and 10 appear to contain the trademark/trade name(s) Dow Corning Sylgard siloxane 184 and 186. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the material of the stamping layers and, accordingly, the identification/description is indefinite.

Appropriate correction and/or clarification is required.

In an effort to advance prosecution of the application, the Examiner has interpreted the scope of the claims as best she can and the following rejection is deemed appropriate:

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Blees et al. (US 6,739,255 B2). Blees et al. teach an elastomeric stamp member 10 for microcontact printing of electronic components, the stamp having a surface region 2 of a material (i.e., PDMS) imparting at least one of the properties of adhesion and wettability enhancement (see column 2, lines 5-14) and at least one subsurface region (any of regions 3 or 4) of a material imparting a particular physical property (i.e., stiffness, adhesion, porosity) to the stamp member. See Figures 1-5 and columns 1-3 in particular. Note that since the surface region of the stamp of Blees et al. is made of the same material as applicant is disclosing, it would inherently have the same material properties (i.e., adhesion or wettability enhancement).

With respect to claim 2, note either the subsurface 3 or 4 provide the property of stiffness to the stamp member, at least to some extent. See column 2, lines 15-22 and column 3, lines 22-24 in particular.

With respect to claim 3, again note the reservoir subsurface region 3, which supplies ink to the printing face during use, is broadly capable of imparting the property of wettability enhancement to the stamp member. See column 1, lines 49-53 and column 3, lines 13-21 in particular.

With respect to claims 4 and 8-9, note the stamp also includes another region (i.e., carrier body layer 4) arranged between stamp body region 1 and reservoir region 3 that can broadly be considered to impart the property of porosity to the stamp. See column 3, lines 6-10 in particular.

With respect to claim 5, note the stamp also includes another region (i.e., carrier body layer 4) arranged between stamp body region 1 and reservoir region 3 that can broadly be considered to impart the property of porosity to the stamp. See column 3, lines 6-10 in particular.

With respect to claim 7, note Blees et al. teach a microcontact printing stamp 10 comprising a body 3 having a layer imparting a bulk stiffness and flatness physical property on which there is a stamping pattern surface 1, and a stamping pattern layer 2 on the stamping pattern supporting surface of the body and being a material capable of being "electronic circuitry processable material" and having at least one of the physical properties of adhesion enhancement and wettability enhancement. Note that the language in lines 6-

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8 regarding the manufacture of the stamp has not been given any patentable weight since in product by process type claims (, determination of patentability is based on the product itself (and does not depend upon the method of production). See MPEP 2113. Therefore, since the stamp of Blees et al. has a stamping pattern layer including a stamping pattern as recited, it meets the claim language as recited.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blees et al. (US 6,739,255 B2) in view of Kumar (US 5,512,131). Blees et al. teach an elastomeric microcontact printing stamp as recited including the surface region comprising Dow Corning Sylgard 184 (see column 5, line 60). Although Blees et al. does not specifically teach the subsurface region of the stamp is comprised of the material Dow Corning Sylgard 186, note the selection of the optimum material for regions or layers of the stamp could easily be determined through obvious routine experimentation. Furthermore, the use of Dow Corning Sylgard 186 in microcontact stamping devices is well known in the art, as exemplified by Kumar et al. in column 8, lines 50-58. Therefore, there is no unobviousness in using any selected material, such as siloxane 184 and siloxane 186, for the regions or layers of the stamp of Blees et al., as it would simply require the obvious selection of a known material based upon its known properties to provide a stamp member with appropriate physical properties to provide accurate printing.

***Response to Arguments***

13. Applicant's arguments filed November 10, 2003 and December 24, 2004 have been fully considered but they are not persuasive of any error in the above rejections.

In particular, applicant argues that Dow Corning Sylgard is well known in the art as exemplified by the Kumer and Bruno et al. references and request the Examiner reconsider her specification objection and claim rejections concerning this language. However, the Examiner disagrees with this argument. Whether these terms are known in the art or not does not alleviate the need for proper usage of these terms in the present application. In particular, the term SYLGARD is a tradename and therefore, everywhere it is used in the present specification, it should be in all capital letters (or be followed by a trademark symbol) and accompanied by the generic terminology. Furthermore, the use of trademarks/trade names in the claims renders the exact scope of the claims unclear, as set forth in the Examiner's claim rejection above. See MPEP 608.01(v) and 2173.05(u) in particular.

Additionally, with respect to the 35 USC 112 rejection, applicant argues that the various terms in the claims are well known in the art as exemplified by the various cited references and therefore these references give the claim terms meaning and significance. The Examiner disagrees with this argument. In particular, it is the Examiner's position that applicant must rely upon his/her

own disclosure to provide meaning and significance to the various claim terms in the present application. Furthermore, it is the Examiner's position that each of these terms is a relative term with no degree of comparison set forth and thereby, it is not clear what is necessary to meet the claim language as recited.

Applicant's arguments with respect to claims 1-10 regarding the prior art rejections have been considered but are moot in view of the new ground(s) of rejection.

In view of the above reasoning, the Examiner is not persuaded of any error in her rejections.


### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Leslie J. Evanisko** whose telephone number is **(571) 272-2161**. The examiner can normally be reached on M-Th 7:30 am-6:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Leslie J. Evanisko  
Primary Examiner  
Art Unit 2854

lje  
June 9, 2005

  
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